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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|-----------------------|------------------|
| 09/681,622 | 05/10/2001 | Peter M. Will | 06666/033002/USC 2857 | 4658 |

20985 7590 03/24/2005

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| EXAMINER |
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SHAHER, RICKY D

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| ART UNIT | PAPER NUMBER |
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2872

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

E/C

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|------------------------------|--------------------------------------|-----------------------------|--|
| Office Action Summary | Application No. 09/681,622 | Applicant(s) WILL | |
| | Examiner Ricky D. Shafer | Art Unit 2872 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 4, 6-18, 20-25 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 19, 26 and 28-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/23/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-3, 5, 19, 26 and 28-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 7-9, the use of the language "such...locations" is nonsensical.

In claim 1, line 11, "said states" lacks proper antecedent basis.

In claim 19, line 11, the language "a reflector element" is confusing. It is unclear whether the above mentioned language is referring to one of the reflector elements previously mentioned or to another reflector element. Thus, the metes and bounds of the claim is unclear.

In claim 30, line 11, the language "a series...with" is vague, indefinite and confusing. It is unclear to the examiner whether the language "a series of movable mirrors" is referring to additional structure or whether the language lacks proper nexus/antecedent basis with respect to the reflector elements. Thus, metes and bounds of the claim is unclear.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Leddy et al ('493).

To the extent the claims are definite, Leddy et al discloses an optical device comprising a source (24) for supplying an input optical beam to an array of movable reflector/mirror elements-DMD (28), wherein said input optical beam is reflected by said array of movable reflector/mirror

elements to form an output optical beam at a focused location (26) and a controller (not shown) for controlling said array of reflector/mirror elements in a digital mode (see column 4, lines 45-52), wherein a scene generator generates multiple digital bits for each of the individual reflector/mirror elements of the DMD and said controller, based on each change of each single digital bit of said multiple digital bits, selectively controls said reflector/mirror elements and thus changes the focused location where said output beam is directed. Note Figures 1a and 5a to 12 along with the associated description thereof.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leddy et al ('493) in view of Lin et al ('869).

Leddy et al discloses all of the subject matter claimed, note the above explanation, except for explicitly stating that the array of reflector/mirror elements having different sizes.

Lin et al teaches it is well known to employ different sizes for reflector/mirror elements in the same field of endeavor for the purpose of changing the phase of a wave front of a beam.

Therefore, it would have been obvious and/or within the level of one of ordinary skill the art at the time the invention was made to modify the reflector/mirror elements of Leddy et al to include different sizes, as taught by Lin et al, in order to change the phase of a wave front of a beam so as to increase the processing of information.

Art Unit: 2872

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).


Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricky D. Shafer whose telephone number is (571) 272-2320. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RDS

March 21, 2005


RICKY D. SHAFER
PATENT EXAMINER
ART UNIT ~~2872~~ 2872